

Responses to CDH comments provided in letter dated September 19, 1991

- No 1        Page numbers for the sub-headings in Sections 2, 7, and 9 have been corrected and modified as necessary to reflect additional changes resulting from new amendments to the work plan
- No 2        The List of Figures has been corrected to include the correct titles for Figures 9-7 and 9-8
- No 3        The text has been edited to clarify the occurrence of vegetative stress in the buffer zone at Rocky Flats
- No 4        Where applicable, all figures have been redrawn to reflect the distinction between the boundary for IHSS 114 and OU7
- No 5        The appropriate figures have been modified to indicate a symbol for the valves in the groundwater intercept system
- No 6        The text has been modified to include a reference to Figure 2-2 following the appropriate sentence
- No 7        The legends for Figures 2-11 through 2-14 have been modified as requested
- No 8        The missing second page of Table 2-6 has been provided
- No 9        Because of the complexities of the nature and extent of contamination within OU7, a flow chart analysis will be performed for the Phase II RFI/RI to identify and clarify the sampling needs for obtaining sufficient information for evaluating risks to human health and evaluating remedial alternatives
- No 10       The text has been edited to reference the CDH WQCC groundwater standards as Regulation 3 12 0 (5CCR 1002-8)
- No 11       EG&G disagrees with the State's position that Tables A & B State Standards are ARARs and suggests further discussion regarding this issue
- No. 12.     The text has been edited as requested.
- No 13       Surface soils in the vicinity of OU7 have been disturbed by various construction activities. Therefore, soil samples near OU7 are not likely to represent actual background conditions. Analytical data from soil samples collected during the Phase I RFI/RI will be compared to the statistically determined definitions for background concentrations provided in the Background Geochemical Characterization Report

- No 14      The document detailing the protocol for waste operations and management at the Present Landfill is currently being prepared by DOE and EG&G for agency review and approval. This document will be submitted to the agencies under separate cover.
- No 15      There will not be a Technical Review Group process for the Phase I RFI/RI Work Plan. We understand that the public will be allowed to review but not comment on the document.
- No 16      The text has been edited to clarify the purpose of the drill holes.
- No 17      The text has been edited to indicate that, in accordance with the IAG, the Phase I Baseline Risk Assessment will determine the risk associated with the source and soils at OU7. The determination of risk associated with transported contaminants will be performed during the Phase II investigation.
- No 18      The IAG requires compliance with the National Contingency Plan (NCP). The 10E-04 to 10E-06 risk range quoted is the risk range required by the NCP and supplementary EPA guidance. Paragraph 300.430 (e)(2)(i)(A)(2) of the NCP states that "for known or suspected carcinogens, acceptable exposure levels are generally concentration levels that represent an express upper bound lifetime cancer risk to an individual of between 10E-04 and 10E-06 using information on the relationship between dose and response." This guidance is reiterated in OSWER directive 9355.0-30, "Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions," dated April 22, 1991, which states:
- 1      Where the cumulative carcinogenic site risk to an individual based on reasonable maximum exposure for both current and future land use is less than 10E-04, and the non-carcinogenic hazard quotient is less than 1, action is generally not warranted unless there are adverse environmental impacts.
  - 2      The upper boundary of the risk range is not a discrete line at 10E-04, although EPA generally uses 10E-04 in making risk management decisions. A specific risk estimate around 10E-04 may be considered acceptable if justified based on site-specific conditions.
- No 19      Figure 7-2 may be removed from the three-ring binder and reinserted in the appropriate location behind Page 7-12.
- No 20      Table 7-3 has been edited to indicate that two vapor samples will be obtained from the vadose zone. (Additionally, liquid samples will be obtained from each zone of perched liquid encountered in the vadose zone.)
- No 21      The table and text have been edited as requested.

- No 22        The table and text have been edited as requested
- No 23        The text has been edited as requested
- No 24        The text has been edited to indicate that flow measurements will be obtained using the flow meter attached to the CPT rods. Flow measurements will be combined with data from isopleth maps of gas concentration data to determine gas production
- No 25        The text has been edited as requested to indicate that ten percent of the sample will be sent offsite to an analytical laboratory to confirm the results of the portable gas chromatograph. This percentage of confirmatory sampling exceeds the 5 percent QC sampling recommended in SW-846 and is considered to be more than sufficient to meet the RFI/RI data quality objectives
- No 26        The text has been edited as requested
- No 27        The justification for the locations of the three sediment samples is provided on Page 7-20
- No 28.        The text has been edited as requested
- No 29        The text has been edited as requested
- No 30.        The text has been edited as requested
- No 31        This sentence refers to toxicity values (e.g., reference doses and slope factors) derived from the dose-response evaluation and used to estimate the incidence or potential for adverse effects as a function of human exposure to the agent. The text has been edited to clarify this
- No 32        See response to comment No 18
- No 33        The text has been edited as requested
- No 34        An enlarged, legible figure has been provided for insertion into the document
- No 35        The text has been edited as requested
- No 36        The text has been edited to reflect recent changes in the soil sampling program presented in Table 7-3
- No 37        A document change notice (DCN) has been prepared to change procedure GT 08 (SOP 3.8), Surface Soil Sampling, to include collecting shallow subsurface soil samples with a hand auger. DCNs will replace the use of

standard operating procedure addenda (SOPAs).

- No 38      Operating procedures have been developed for the CPT and BAT systems. These will be included as part of the EMAD Operating Procedures and will be submitted to EPA and CDH for review.

Responses to EPA concerns provided in EPA letter to CDH dated September 18, 1991.

Paragraph 1   EG&G agrees that technical memoranda will be utilized during the RFI/RI to identify additional appropriate and necessary efforts based on findings of the Phase I investigation.

Paragraph 2   At the time of the preparation of the OU7 Work Plan, no information was found regarding the well construction and possible decommissioning of the 47 (not "50 or more" as stated by the EPA) wells installed in the landfill to assess the occurrence and distribution of tritium. Additional effort will be made during the implementation of the Phase I RFI/RI Work Plan to obtain this information. The work plan does not propose efforts to locate these wells because location coordinates are presently available. These are discussed on Page 2-28, illustrated in Figure 2-20, and tabulated in Appendix C in the work plan. Field efforts to evaluate the condition of the wells were not proposed because EG&G already assumes that these wells allow vertical migration of liquid in the landfill waste. The existing conceptual model of the landfill assumes that liquid infiltrates the existing cover material, flows through existing void space within the fill material (including waste, disturbed daily soil cover, and probably the wells installed for the tritium investigation), and discharges at the landfill seep (SW097). Rather than focus on the condition of the wells, the Phase I RFI/RI has been designed to assess the three-dimensional flow regime and distribution of contaminants within the source and soils at OU7. This information will allow an assessment of the vertical migration of contaminants within the landfill materials.

Paragraph 3.   EG&G agrees that this issue should be discussed between all parties in the near future but also notes that the purpose of an RFI/RI work plan is not to propose or recommend interim response actions.

Paragraph 4   EG&G appreciates EPA's clarification of the integration of the risk assessment process and the Phase I/Phase II scheme established in the IAG.

Paragraph 5.   EG&G agrees that the list of contaminants of concern (COCs) may be premature given the limited amount of data validated for OU7 and intends to work with the Risk Assessment Technical Working Group as the COC list and the criteria for their selection are developed.